A. HETZNER.

TOY AMUSEMENT APPARATUS.

APPLICATION FILED FEB. 27, 1922.

1,431,398. Patented Oct. 10, 1922.

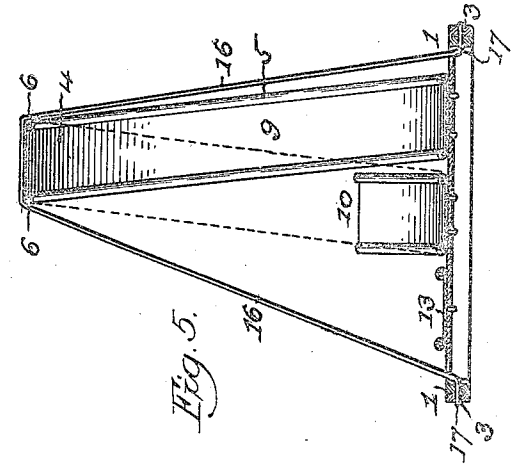


Fig. 5.

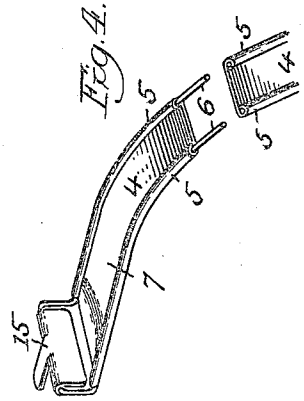


Fig. 4.



Fig. 1.

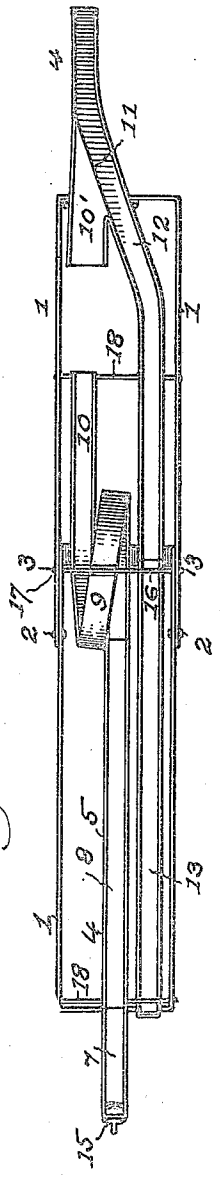


Fig. 2.

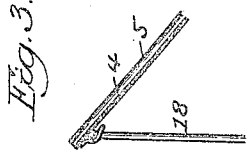


Fig. 3.

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# UNITED STATES PATENT OFFICE.

ALBERT HETZNER, OF CHICAGO, ILLINOIS.

## TOY AMUSEMENT APPARATUS.

Application filed February 27, 1922. Serial No. 539,612.

*To all whom it may concern:*

Be it known that I, ALBERT HETZNER, a citizen of the United States of America, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Toy Amusement Apparatus, of which the following is a specification.

This invention relates to that class of toys in which a car or the like has rapid downward travel in a track of a tortuous or curved formation, and has for its objects:—

To provide a structural formation and combination of parts whereby a sectional and folding structure is provided capable of ready assemblage, disassemblage and compact storage when not required for use, and with which an effective connection and bracing of the parts is attained in the assembled condition thereof.

To provide a simple switch-back construction of the track portion of the structure whereby an automatic return of the car is effected in an efficient manner.

To provide a structural track formation adapted to provide a cheap and durable construction with which the ends of the sections of track are readily and securely connected together, all as will hereinafter more fully appear.

In the accompanying drawing:

Fig. 1, is a perspective view illustrating the general arrangement of parts in the present improvement and in an assembled condition ready for use.

Fig. 2, is a top view of the same.

Fig. 3, is a detail vertical section of the track and its folding brace.

Fig. 4, is an enlarged detail perspective view of the starting trigger at one end of the track.

Fig. 5, is an enlarged transverse sectional elevation on a plane cutting the center of the circular loop portion of the track.

Like reference numerals indicate like parts in the several views.

Referring to the drawing, 1 designates the supporting base, preferably of the rectangular sectional plate metal form shown, with the side rails thereof formed into a plurality of two or more sections, adapted to be secured together as a single rigid base structure by means of overlapping ends having aligned lateral pins and orifices 2, and with aligned orifices 3 adapted to receive in a detachable manner the laterally bent lower ends of the central track brace hereinafter described.

4 designates the sectional main track of the inclined and tortuous formation hereinafter described, and formed of strips of sheet metal the margins of which are formed with rolls or beads 5 which embrace wire cores 6 to constitute a double line of railway rails as shown. In the sectional formation of the present improvement, the wire core 6 is omitted from one end of a track section to leave a tubular recess, and the wire cores 6 project from the adjacent end of another track section, so that with the insertion of the described projecting portions of the cores into the bore of the roll or bend 5 of the other section, a simple, substantial and detachable connection of the parts is attained as illustrated more particularly in Fig. 4.

The sectional track 4 of the present improvement comprises, an elevated horizontal starting portion or platform 7; an extended inclined portion 8, descending from the platform 7 to a point adjacent to the mid length of the base 1; a longitudinally extending and spirally arranged circular loop portion 9, detachably connected to lower end of the inclined portion 8 in manner hereinafter described with the track rails arranged in the interior of said circular loop portion; a pair of aligned inclined portions 10 and 10′ in spaced or gapped relation as shown, with the end of the portion 10 connecting with the adjacent end of the circular loop 9 in the above mentioned detachable manner and with the remote end of the other portion 10′ having an inclined lateral offset 11; a laterally and downwardly inclined return portion 12 connecting with the aforesaid offset 11 as shown more particularly in Fig. 2, and an approximately horizontal portion 13 in aligned relation to the portion 12 and detachably connected thereto in manner above referred to. The portions or sections 12 and 13 constitute a return track for the automatic return of a toy car 14 or the like, and adapted to conduct said car to a point beneath the starting platform 7 aforesaid, for convenient transfer by hand to said starting platform for a succeeding operation of the apparatus.

15 designates a pivoted trigger plate mounted transversely at an end of the platform 7 and adapted to provide means, under

the control of the operator, for giving a more or less energetic starting push to the car 14 in the starting the same in its travel upon the track 4. With the described construction the extended inclined portion 8 of the track is adapted to impart added momentum to the car 14 sufficient to carry the same around the circular loop portion 9 and from thence along the track portions 10, 10′ and across the gap between the same. As the car 14 reaches the inclined offset portion 11 it drops onto the remote end of the inclined portion 12, upon which it moves by gravity and momentum along said portion and the portion 13 to a position beneath the starting platform 7 aforesaid.

16 designates an arched brace of wire, the apex of which has detachable connection with the crown of the loop portion 9, with the lower ends of its spreading arms formed with laterally extending prongs or bends 17 adapted to engage in the heretofore described aligned orifices 3 of the overlapping side rails of the sectional base 1 to secure the parts together in assembled relation.

18 designate a series of braces or supports of a V or arched shape hinged to different portions of track 4 and having at their lower ends prongs or bends adapted to engage in orifices formed therefor in the bars or plates which constitute the base 1 of the apparatus.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In an amusement apparatus, the combination of a sectional track adapted to support a moving car and formed with an aligned starting platform, a main inclined portion, an intermediate loop portion and secondary inclined portions, a supporting base formed in sections having overlapping ends, lateral stud and orifice connections for said ends, and an arched brace engaging the crown of the loop portion of the track and having prongs at its lower ends for engagement in aligned orifices in the overlapping ends of the track sections.

2. In an amusement apparatus, the combination of a track adapted to support a moving car and formed with an aligned starting platform, a main inclined portion, and intermediate loop portion, and secondary inclined portions, said track comprising sections of sheet metal having folded margins enclosing wire cores and constituting the side rails of the track, and a base supporting the track.

3. In an amusement apparatus, the combination of a track adapted to support a moving car and formed with an aligned starting platform, a main inclined portion, and intermediate loop portion, and secondary inclined portions, said track comprising sections of sheet metal having folded margins enclosing wire cores and constituting the side rails of the track, the end of one track section having its cores removed to provide receiving sockets and the end of an adjacent track section its wire cores projecting to engage in said sockets, and a base supporting the track.

4. In an amusement apparatus, the combination of a track adapted to support a moving car and formed with an aligned starting platform, a main inclined portion, and intermediate loop portion, and secondary inclined portions having at a remote end an inclined offset, a return track comprising a downwardly inclined and aligned horizontal portion, and a base supporting the tracks.

5. In an amusement apparatus, the combination of a track adapted to support a moving car and formed with an aligned starting platform, a main inclined portion, and intermediate loop portion, and secondary inclined portions separated by a gap, the remote end of one of said secondary inclined portions having an inclined offset, a return track comprising a downwardly inclined and aligned horizontal portion, and a base supporting said tracks.

6. In an amusement apparatus, the combination of a track adapted to support a moving car and formed with an aligned starting platform, a main inclined portion, and intermediate loop portion, and secondary inclined portions, a plurality of arched braces pivotally connected to said track with their lower ends formed with lateral prongs, and a supporting base formed for detachable engagement with said prongs.

Signed at Chicago, Illinois, this 25th day of February, 1922.

ALBERT HETZNER.